

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

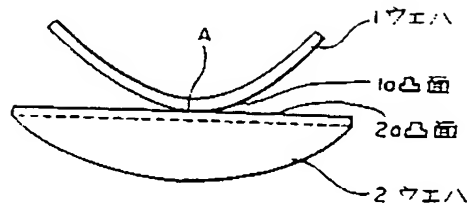
PUBLICATION NUMBER : 01004013
PUBLICATION DATE : 09-01-89
APPLICATION DATE : 26-06-87
APPLICATION NUMBER : 62158905

APPLICANT : SONY CORP;

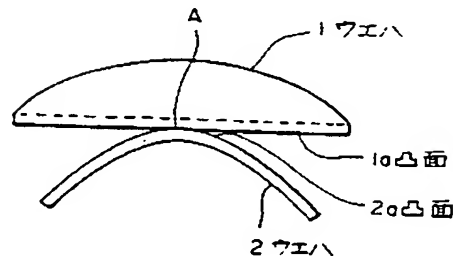
INVENTOR : SATO HIROSHI;

INT.CL. : H01L 21/02 H01L 21/18 H01L 21/304

TITLE : FORMATION OF SUBSTRATE



(1)



(2)

ABSTRACT : PURPOSE: To eliminate a part not bonded when substrates are to be bonded by a method wherein faces to be bonded of the substrates are curved in such a way that convex faces are faced at right angles or at a prescribed angle to each other, the faced convex faces are brought into contact with each other and, after that, both faces are bonded while the curved faces are respectively restored to a plane.

CONSTITUTION: Two disk-shaped wafers 1 and 2 to be bonded are prepared; a force is exerted on these wafers 1, 2; the wafers are deformed and curved to be U-shaped in such a way that faces to be bonded become mutually convex faces 1a, 2a and that the mutually convex faces 1a, 2a are faced at right angles or at nearly right angles to each other. Then, the convex faces 1a, 2a of the wafers 1, 2 which have been curved to be U-shaped are initially brought into contact with each other near the center A in such a way that they are faced at right angles or at nearly right angles to each other. In succession, a curved state is released, and the wafers 1, 2 are respectively restored to a plane state and are superposed; they are heated and are bonded. A contact part is extended radially from the center A or from a point-like contact position near the center; a surrounding gas such as the air or the like is expelled; accordingly, the two wafers 1, 2 are bonded closely to each other.

COPYRIGHT: (C)1989,JPO&Japio